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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/771,833	01/29/2001	Takehiko Numata	3531.65151	9342

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EXAMINER	
ORTIZ CRIADO, JORGE L	

ART UNIT	PAPER NUMBER
2697	

DATE MAILED: 10/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/771,833	NUMATA, TAKEHIKO	
	Examiner	Art Unit	
	Jorge L Ortiz-Criado	2697	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 July 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-10 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☒ The proposed drawing correction filed on *16 July 2003* is: a)☒ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

1. Claims 1-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Nagata et al. U.S. Patent No. 6,487,144.

Regarding claim 1, Nagata et al. discloses an optical storage medium having land tracks and groove tracks alternately formed and capable of recording and/or reproducing information with respect to said land tracks and said groove tracks (See Abstract), comprising:

a plurality of first ID portions respectively having first track addresses as consecutive numbers given to said land tracks (See col. 7, lines 1-7; col. 8, lines 4-24; Figs. 2,3,5);

and a plurality of second ID portions respectively having second track addresses as consecutive numbers given to said groove tracks independently of said consecutive numbers of said first track addresses (See col. 7, lines 1-7; col. 8, lines 4-24; Figs. 2,3,5).

Regarding claim 2, Nagata et al. discloses wherein each of said first ID portions has a first identifier for identifying said land tracks (See col. 8, lines 4-24; Figs. 5,7).

and each of said second ID portions has a second identifier for identifying said groove tracks (See col. 8, lines 4-24; Figs. 5,7),

and wherein each of said first ID portions is provided in each of first headers (See col. 8, lines 4-24; Figs. 5,7).

and each of said second ID portions is provided in each of second headers (See col. 8, lines 4-24; Figs. 5,7).

Regarding claim 3, Nagata et al. discloses an optical storage medium having land tracks and groove tracks alternately formed and divided into a plurality of groups, and capable of recording and/or reproducing information with respect to said land tracks and said groove tracks (See Abstract; Figs, 1,2,3,5,7,14,15), comprising:

a plurality of first ID portions respectively having first track addresses as consecutive numbers given to said land tracks in each group (See col. 6, line 17 to col. 7, line 7; col. 8, lines 4-24; col. 12, lines 23-55; Figs. 1,2,3,5,14,15); and

a plurality of second ID portions respectively having second track addresses as consecutive numbers given to said groove tracks in each group (See col. 6, line 17 to col. 7, line 7; col. 8, lines 4-24; col. 12, lines 23-55; Figs. 1,2,3,5,14,14,15);

said consecutive numbers of said second track addresses being consecutive to said consecutive numbers of said first track addresses in the same group (See col. 6, line 17 to col. 7, line 7; col. 8, lines 4-24; col. 12, lines 23-55; Figs. 1,2,3,5,14,14,15);

said consecutive numbers of said first track addresses in any one of said groups being consecutive to said consecutive numbers of said second track addresses in its immediately preceding group (See col. 6, line 17 to col. 7, line 7; col. 8, lines 4-24; col. 12, lines 23-55; Figs. 1,2,3,5,14,15).

Regarding claim 4, Nagata et al. discloses wherein each of said first ID portions has a first identifier for identifying said land tracks, and each of said second ID portions has a second identifier for identifying said groove tracks, and wherein each of said first ID portions is provided in each of first headers and each of said second ID portions is provided in each of second headers (See col. 8, lines 4-24; Figs. 5,7).

Regarding claim 5, Nagata et al. discloses an optical storage medium having land tracks and groove tracks alternately formed and divided into a plurality of groups, and capable of recording and/or reproducing information with respect to said land tracks and said groove tracks (See col. 6, line 17 to col. 7, line 7; col. 8, lines 4-24; col. 12, lines 23-55; Figs. 1,2,3,5,15) comprising:

a plurality of first ID portions respectively having first track addresses as consecutive numbers given to said land tracks in each group (See col. 6, line 17 to col. 7, line 7; col. 8, lines 4-24; col. 12, lines 23-55; Figs. 1,2,3,5,14,15); and

a plurality of second ID portions respectively having second track addresses as consecutive numbers given to said groove tracks in each group (See col. 6, line 17 to col. 7, line 7; col. 8, lines 4-24; col. 12, lines 23-55; Figs. 1,2,3,5,14,15);

said consecutive numbers of said first track addresses being consecutive to said consecutive numbers of said second track addresses in the same group (See col. 6, line 17 to col. 7, line 7; col. 8, lines 4-24; col. 12, lines 23-55; Figs. 1,2,3,5,14,15);

said consecutive numbers of said second track addresses in any one of said groups being consecutive to said consecutive numbers of said first track addresses in its immediately preceding group (See col. 6, line 17 to col. 7, line 7; col. 8, lines 4-24; col. 12, lines 23-55; Figs. 1,2,3,5,14,15).

Regarding claim 6, Nagata et al. discloses wherein each of said first ID portions has a first identifier for identifying said land tracks, and each of said second ID portions has a second identifier for identifying said groove tracks; and wherein each of said first ID portions is provided in each of first headers and each of said second ID portions is provided in each of second headers (See col. 6, line 17 to col. 7, line 7; col. 8, lines 4-24; col. 12, lines 23-55; Figs. 1,2,3,4,5,7,15).

Regarding claim 7, Nagata et al. discloses an optical storage device for transferring information by logical block addresses to an optical storage medium having land tracks and groove tracks alternately formed and given a plurality of track addresses and a plurality of sector addresses (See col. 4, lines 3-41; Fig. 16), comprising:

a producing unit for producing said logical block addresses for giving consecutive numbers to said track addresses of one kind of said land tracks and said groove tracks in each sector (See col. 13-lines 25-28, col. 13, line 56 to col. 14 line 6; col. 15, line 57 to col. 16 line 33; Fig. 16), and

giving consecutive numbers to said track addresses of the other kind of said land tracks (See col. 6, line 17 to col. 7, line 7; col. 8, lines 4-24; col. 12, lines 23-55; Figs. 1,2,3,4,5,7,15) and

said groove tracks in each sector so that said consecutive numbers of said track addresses of the other kind are consecutive to said consecutive numbers of said track addresses of said one kind (See col. 6, line 17 to col. 7, line 7; col. 8, lines 4-24; col. 12, lines 23-55; Figs. 1,2,3,4,5,7,15); and

a converting unit for converting said logical block addresses into said track addresses and said sector addresses of said optical storage medium (See col. 13-lines 25-28, col. 13, line 56 to col. 14 line 6; col. 15, line 57 to col. 16 line 33; Fig. 16).

Regarding claim 8, Nagata et al. discloses an optical storage device for transferring information by logical block addresses to an optical storage medium having land tracks and groove tracks alternately formed and given a plurality of track addresses and a plurality of sector addresses (See col. 4, lines 3-41; Fig. 16), comprising:

a producing unit for producing said logical block addresses for dividing said land tracks and said groove tracks into a plurality of groups, giving consecutive numbers to said track addresses of one kind of said land tracks (See col. 13-lines 25-28, col. 13, line 56 to col. 14 line 6; col. 15, line 57 to col. 16 line 33; Fig. 16) and

said groove tracks in any one of said groups in each sector, giving consecutive numbers to said track addresses of the other kind of said land tracks (See col. 6, line 17 to col. 7, line 7; col. 8, lines 4-24; col. 12, lines 23-55; Figs. 1,2,3,4,5,7,15) and

said groove tracks in said any group in each sector so that said consecutive numbers of said track addresses of the other kind are consecutive to said consecutive numbers of said track addresses of said one kind (See col. 6, line 17 to col. 7, line 7; col. 8, lines 4-24; col. 12, lines 23-55; Figs. 1,2,3,4,5,7,15), and

giving consecutive numbers to said track addresses of said one kind in the group next to said any group in each sector so that said consecutive numbers of said track addresses of said one kind in said next group are consecutive to said consecutive numbers of said track addresses of the other kind in said any group (See col. 6, line 17 to col. 7, line 7; col. 8, lines 4-24; col. 12, lines 23-55; Figs. 1,2,3,4,5,7,15); and

a converting unit for converting said logical block addresses into said track addresses and said sector addresses of said optical storage medium (See col. 13-lines 25-28, col. 13, line 56 to col. 14 line 6; col. 15, line 57 to col. 16 line 33; Fig. 16).

Regarding claim 9, Nagata et al. discloses a producing method for logical block addresses for transferring information to an optical storage medium having land tracks and groove tracks

alternately formed and given a plurality of track addresses and a plurality of sector addresses (See col. 4, lines 3-41; col. 15, line 57 to col. 16 line 33; Fig. 16), comprising the steps of:

giving consecutive numbers to said track addresses of one kind of said land tracks and said groove tracks in each sector (See col. 6, line 17 to col. 7, line 7; col. 8, lines 4-24; col. 12, lines 23-55; Figs. 1,2,3,4,5,7,15); and

giving consecutive numbers to said track addresses of the other kind of said land tracks (See col. 6, line 17 to col. 7, line 7; col. 8, lines 4-24; col. 12, lines 23-55; Figs. 1,2,3,4,5,7,15) and

said groove tracks in each sector so that said consecutive numbers of said track addresses of the other kind are consecutive to said consecutive numbers of said track addresses of said one kind (See col. 6, line 17 to col. 7, line 7; col. 8, lines 4-24; col. 12, lines 23-55; Figs. 1,2,3,4,5,7,15).

Regarding claim 10, Nagata et al. discloses a producing method for logical block addresses for transferring information to an optical storage medium having land tracks and groove tracks alternately formed and given a plurality of track addresses and a plurality of sector addresses, comprising the steps of:

dividing said land tracks and said groove tracks into a plurality of groups (See col. 6, line 17 to col. 7, line 7; col. 8, lines 4-24; col. 12, lines 23-55; Figs. 1,2,3,4,5,7,15);

giving consecutive numbers to said track addresses of one kind of said land tracks and said groove tracks in any one of said groups in each sector; giving consecutive numbers to said track addresses of the other kind of said land tracks (See col. 6, line 17 to col. 7, line 7; col. 8, lines 4-24; col. 12, lines 23-55; Figs. 1,2,3,4,5,7,15)and

said groove tracks in said any group in each sector so that said consecutive numbers of said track addresses of the other kind are consecutive to said consecutive numbers of said track addresses of said one kind; and

giving consecutive numbers to said track addresses of said one kind in the group next to said any group in each sector so that said consecutive numbers of said track addresses of said one kind in said next group are consecutive to said consecutive numbers of said track addresses of the other kind in said any group (See col. 6, line 17 to col. 7, line 7; col. 8, lines 4-24; col. 12, lines 23-55; Figs. 1,2,3,4,5,7,15).

2. Claim 1, 2, 7 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Senshu U.S. Patent No. 6,058,099.

Regarding claim 1, Senshu discloses an optical storage medium having land tracks and groove tracks alternately formed and capable of recording and/or reproducing information with respect to said land tracks and said groove tracks (See Abstract), comprising:

a plurality of first ID portions respectively having first track addresses as consecutive numbers given to said land tracks (See col. 3, lines 39-52, "consecutive odd numbers"; Figs. 3,5,6,13) and

a plurality of second ID portions respectively having second track addresses as consecutive numbers given to said groove tracks independently of said consecutive numbers of said first track addresses (See col. 3, lines 39-52, "consecutive even numbers"; Figs. 3,5,6,13)

Regarding claim 2, Senshu discloses wherein each of said first ID portions has a first identifier for identifying said land tracks (See col. 4, lines 29-35; Figs. 3,5,6,13) and

each of said second ID portions has a second identifier for identifying said groove tracks (See col. 4, lines 29-35; Figs. 3,5,6,13) and

wherein each of said first ID portions is provided in each of first headers (See col. 4, lines 29-35; Figs. 3,5,6,13) and

each of said second ID portions is provided in each of second headers (See col. 4, lines 29-35; Figs. 3,5,6,13)

Regarding claim 7, Senshu discloses an optical storage device for transferring information by logical block addresses to an optical storage medium having land tracks and groove tracks alternately formed and given a plurality of track addresses and a plurality of sector addresses (See col. 6, lines 11-15), comprising:

a producing unit for producing said logical block addresses for giving consecutive numbers to said track addresses of one kind of said land tracks and said groove tracks in each sector (See col. 3, lines 39-52; "consecutive even numbers"; col. 6, lines 16-18, Fig. 3,8,16),

giving consecutive numbers to said track addresses of the other kind of said land tracks (See col. 3, lines 39-52, "consecutive odd numbers"; Fig. 3,8)

and said groove tracks in each sector so that said consecutive numbers of said track addresses of the other kind are consecutive to said consecutive numbers of said track addresses of said one kind (See col. 3, lines 39-52; "odd consecutive numbers and even consecutive numbers"; Fig. 3,8); and

a converting unit for converting said logical block addresses into said track addresses and said sector addresses of said optical storage medium (See col. 6, lines 28-35).

Regarding claim 9, Method claim 9 is drawn to the method of using the corresponding optical storage device claimed in claim 7. Therefore method claim 9 corresponds to device claim 7 and is rejected for the same reasons of anticipation as used above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 3-6, 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Senshu U.S. Patent No. 6,058,099 in view of Horimai et al. U.S. Patent 6,215,758.

Regarding claims 3 and 5, Senshu discloses an optical storage medium having land tracks and groove tracks, and capable of recording and/or reproducing information with respect to said land tracks and said groove tracks (See col. 3, lines 39-52; Figs. 3,5,6,13)) comprising:

a plurality of first ID portions respectively having first track addresses as consecutive numbers given to said land tracks (See col. 3, lines 39-52, "consecutive odd numbers"; Figs. 3,5,6,13);

and a plurality of second ID portions respectively having second track addresses as consecutive numbers given to said groove tracks (See col. 3, lines 39-52, "consecutive odd numbers"; Figs. 3,5,6,13)

said consecutive numbers of said (second, first) track addresses being consecutive to said consecutive numbers of said (first, second) track addresses (See col. 3, lines 39-52, "consecutive odd numbers", "consecutive even numbers" and "consecutive number"; Figs. 3,5,6,13).

said consecutive numbers of said (first, second) track addresses being consecutive to said consecutive numbers of said (second, first) track addresses in its immediately (See col. 3, lines 39-52, "consecutive odd numbers", "consecutive even numbers" and "consecutive numbers between first and second addresses"; Figs. 3,5,6,13).

Senshu further teaches the use of having land tracks and groove tracks alternately formed and divided into a plurality of groups (See col. 4, lines 56-67) and further. But Senshu does not expressly disclose having a plurality of groups.

However this feature its well known in the art as evidenced by Horimai et al., which discloses having land tracks and groove tracks alternately formed and divided into a plurality of groups (See Abstract, Figs. 1, 2) and having portions respectively having addresses for the grooves and land tracks (See Fig. 28).

Therefore it would have been obvious to one with ordinary skill in the art at the time of the invention to include land tracks and groove tracks alternately formed and divided into a plurality

of groups and include said consecutive numbers of said first track addresses in any one of said groups being consecutive to said consecutive numbers of said second track addresses in its immediately preceding group in order to format of a recording medium suitable for a larger capacity providing high transfer rate, and integration of pits/lands/grooves as suggested by Horimai et al.

Regarding claims 4 and 6, Senshu further discloses wherein each of said first ID portions has a first identifier for identifying said land tracks (See col. 4, lines 29-35; Figs. 3,5,6,13),

and each of said second ID portions has a second identifier for identifying said groove tracks (See col. 4, lines 29-35; Figs. 3,5,6,13),

and wherein each of said first ID portions is provided in each of first headers and each of said second ID portions is provided in each of second headers (See col. 4, lines 29-35; Figs. 3,5,6,13)

Regarding claim 8, Senshu discloses an optical storage device for transferring information by logical block addresses to an optical storage medium having land tracks and groove tracks alternately formed and given a plurality of track addresses and a plurality of sector addresses (See col. 6, lines 11-15), comprising:

a producing unit for producing said logical block addresses for dividing said land tracks and said groove tracks, giving consecutive numbers to said track addresses of one kind of said land tracks and said groove tracks in each sector (See col. 3, lines 39-52; "consecutive even numbers"; col. 6, lines 16-18, Fig. 3,8,16),

giving consecutive numbers to said track addresses of the other kind of said land tracks and said groove tracks (See col. 3, lines 39-52, "odd consecutive numbers and even consecutive numbers"; Fig. 3,8)

so that said consecutive numbers of said track addresses of the other kind are consecutive to said consecutive numbers of said track addresses of said one kind (See col. 3, lines 39-52; "consecutive odd numbers" , "consecutive even numbers" and "consecutive numbers between the two kinds"; Fig. 3,8); and

a converting unit for converting said logical block addresses into said track addresses and said sector addresses of said optical storage medium (See col. 6, lines 28-35).

Senshu further teaches the use of having land tracks and groove tracks alternately formed and divided into a plurality of groups (See col. 4, lines 56-67) and further. But Senshu does not expressly disclose dividing the lands and the grooves into groups.

However this feature its well known in the art as evidenced by Horimai et al., which discloses having land tracks and groove tracks alternately formed and divided into a plurality of groups (See Abstract, Figs. 1, 2) and having portions respectively having addresses for the grooves and land tracks (See Fig. 28).

Therefore it would have been obvious to one with ordinary skill in the art at the time of the invention to include land tracks and groove tracks alternately formed and divided into a plurality of groups and giving consecutive numbers to said track addresses of said one kind in the group next to said any group in each sector so that said consecutive numbers of said track addresses of said one kind in said next group are consecutive to said consecutive numbers of said track addresses of the other kind in said any group by providing continuity between the land and the

groove tracks as teaches by Senshu and further in order to format of a recording medium suitable for a larger capacity providing high transfer rate, as suggested by Horimai et al.

Regarding claim 10, Method claim 10 is drawn to the method of using the corresponding optical storage device claimed in claim 8. Therefore method claim 10 corresponds to device claim 8 and is rejected for the same reasons of obviousness as used above.

Response to Arguments

4. Applicant's arguments, see page 3-7, filed 07/16/2003, with respect to the rejection(s)of claim(s) 1 under 35 U.S.C 102(e) rejection and 3,4 and 5 under 35 U.S.C. 103 rejection have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art references.

Allowable Subject Matter

5. The indicated allowability of claims 7-10 is withdrawn in view of the newly discovered reference(s) to Nagata et al. and Senshu.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jorge L Ortiz-Criado whose telephone number is (703) 305-8323. The examiner can normally be reached on Mon.-Thu.(8:30 am - 6:00 pm),Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris H To can be reached on (703) 305-4827. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

joc

9/30/03

DORIS H. TO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600